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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/043,539A

DATE: 09/23/2002
TIME: 10:23:43

Input Set : A:\EP.txt
Output Set: N:\CRF3\09232002\J043539A.raw

```
      3 <110> APPLICANT: Cheung, Ambrose
      4        Manna, Adar
      5        Zhang, Gongyi
      7 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR AFFECTING VIRULENCE
DETERMINANTS IN BACTERIA
      9 <130> FILE REFERENCE: DC-0199
     11 <140> CURRENT APPLICATION NUMBER: US 10/043,539A
C--> 12 <141> CURRENT FILING DATE: 2000-01-11
     14 <150> PRIOR APPLICATION NUMBER: US 60/261,233
     15 <151> PRIOR FILING DATE: 2001-01-12
     17 <150> PRIOR APPLICATION NUMBER: US 60/261,607
     18 <151> PRIOR FILING DATE: 2001-01-12
     20 <150> PRIOR APPLICATION NUMBER: US 60/289,601
     21 <151> PRIOR FILING DATE: 2001-05-08
     23 <160> NUMBER OF SEQ ID NOS: 35
     25 <170> SOFTWARE: PatentIn version 3.1
     27 <210> SEQ ID NO: 1
     28 <211> LENGTH: 947
     29 <212> TYPE: DNA
     30 <213> ORGANISM: Staphylococcus aureus
     32 <220> FEATURE:
     33 <221> NAME/KEY: CDS
     34 <222> LOCATION: (208)..(552)
     35 <223> OTHER INFORMATION:
     38 <400> SEQUENCE: 1
     39 gttttcaaaa tcggtggagg tgcatgaaaa agttattggg cattttttga aaataaaaaa      60
     41 atatcaataa gttggagtca ttaccgaatt tttatactta tttgtttaga atgaacttta     120
     43 taacatagtt ggatagagtt ttcgatttaa tacattaaat gtgaaccttg ctacaacaag     180
     45 atgtgcatca gaaggagtgg tttaata atg agt aaa att aat gat att aat gat     234
     46                                Met Ser Lys Ile Asn Asp Ile Asn Asp
     47                                  1               5
     49 tta gtc aac gca aca ttt caa gtt aag aag ttt ttc aga gat aca aaa     282
     50 Leu Val Asn Ala Thr Phe Gln Val Lys Lys Phe Phe Arg Asp Thr Lys
     51 10              15                  20                  25
     53 aag aag ttc aat ttg aac tat gaa gaa att tat att tta aat cat att     330
     54 Lys Lys Phe Asn Leu Asn Tyr Glu Glu Ile Tyr Ile Leu Asn His Ile
     55                 30                  35                  40
     57 tta aga agt gag tct aac gaa atc tca tct aaa gag att gct aag tgc     378
     58 Leu Arg Ser Glu Ser Asn Glu Ile Ser Ser Lys Glu Ile Ala Lys Cys
     59                 45                  50                  55
     61 tca gag ttc aaa cct tac tat tta act aaa gct tta caa aag cta aaa     426
     62 Ser Glu Phe Lys Pro Tyr Tyr Leu Thr Lys Ala Leu Gln Lys Leu Lys
     63         60                  65                  70
     65 gat tta aaa ttg tta tca aag aaa aga agt tta caa gac gaa aga aca     474
```

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```
66 Asp Leu Lys Leu Leu Ser Lys Lys Arg Ser Leu Gln Asp Glu Arg Thr
67      75                80                85
69 gtt att gtt tat gtt aca gat aca caa aaa gca aat att caa aaa ctg        522
70 Val Ile Val Tyr Val Thr Asp Thr Gln Lys Ala Asn Ile Gln Lys Leu
71 90               95                100                105
73 att tca gaa tta gaa gaa tac att aaa aat taaatcaagg ttaattgcgt        572
74 Ile Ser Glu Leu Glu Glu Tyr Ile Lys Asn
75                110                115
77 ttaataacat tgaacgataa caatttatta atacgaagtt atttattcag cattgggaca        632
79 taaaattaac ttaaaattta aatattgaag atgctttaat taaagttaaa gaccagccat        692
81 accttatttc agcttattaa gcttgacaca aggtacacta gtcttttat tttaatattt        752
83 tcttagaaaa tcaagtttac gatcataaat attttctgcg atatagcttt ggatggttcc        812
85 aagtattttc tctataattt gtgtgcgata agcaaaaatt ctaactgcaa aaccatgtgt        872
87 aggcaattga gaaatagcaa cacgacaatc ggatgtattg ctataagaac taatggtttc        932
89 ataaactgaa tcgat        947
92 <210> SEQ ID NO: 2
93 <211> LENGTH: 115
94 <212> TYPE: PRT
95 <213> ORGANISM: Staphylococcus aureus
97 <400> SEQUENCE: 2
99 Met Ser Lys Ile Asn Asp Ile Asn Asp Leu Val Asn Ala Thr Phe Gln
100 1               5                10                15
103 Val Lys Lys Phe Phe Arg Asp Thr Lys Lys Lys Phe Asn Leu Asn Tyr
104               20                25                30
107 Glu Glu Ile Tyr Ile Leu Asn His Ile Leu Arg Ser Glu Ser Asn Glu
108               35                40                45
111 Ile Ser Ser Lys Glu Ile Ala Lys Cys Ser Glu Phe Lys Pro Tyr Tyr
112      50                55                60
115 Leu Thr Lys Ala Leu Gln Lys Leu Lys Asp Leu Lys Leu Leu Ser Lys
116 65               70                75                80
119 Lys Arg Ser Leu Gln Asp Glu Arg Thr Val Ile Val Tyr Val Thr Asp
120               85                90                95
123 Thr Gln Lys Ala Asn Ile Gln Lys Leu Ile Ser Glu Leu Glu Glu Tyr
124               100                105                110
127 Ile Lys Asn
128      115
131 <210> SEQ ID NO: 3
132 <211> LENGTH: 124
133 <212> TYPE: PRT
134 <213> ORGANISM: Staphylococcus aureus
136 <400> SEQUENCE: 3
138 Met Ala Ile Thr Lys Ile Asn Asp Cys Phe Glu Leu Leu Ser Met Val
139 1               5                10                15
142 Thr Tyr Ala Asp Lys Leu Lys Ser Leu Ile Lys Lys Glu Phe Ser Ile
143               20                25                30
146 Ser Phe Glu Glu Phe Ala Val Leu Thr Tyr Ile Ser Glu Asn Lys Glu
147               35                40                45
150 Lys Glu Tyr Tyr Leu Lys Asp Ile Ile Asn His Leu Asn Tyr Lys Gln
151      50                55                60
```

```
154 Pro Gln Val Val Lys Ala Val Lys Ile Leu Ser Gln Glu Asp Tyr Phe
155 65                  70                  75                  80
158 Asp Lys Lys Arg Asn Glu His Asp Glu Arg Thr Val Leu Ile Leu Val
159              85                  90                  95
162 Asn Ala Gln Gln Arg Lys Lys Ile Glu Ser Leu Leu Ser Arg Val Asn
163              100                 105                 110
166 Lys Arg Ile Thr Glu Ala Asn Asn Glu Ile Glu Leu
167         115                 120
170 <210> SEQ ID NO: 4
171 <211> LENGTH: 30
172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Degenerate oligonucleotide.
178 <400> SEQUENCE: 4
179 atgwswaaaa tyaaygatat yaaygatttt                              30
182 <210> SEQ ID NO: 5
183 <211> LENGTH: 30
184 <212> TYPE: DNA
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: Degenerate oligonucleotide.
190 <400> SEQUENCE: 5
191 attwswytcw swwckyaara trtgrttyaa                              30
194 <210> SEQ ID NO: 6
195 <211> LENGTH: 24
196 <212> TYPE: DNA
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: Synthetic oligonucleotide.
202 <400> SEQUENCE: 6
203 gcatgaaaaa gatatcgggc attt                                    24
206 <210> SEQ ID NO: 7
207 <211> LENGTH: 26
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Synthetic oligonucleotide.
214 <400> SEQUENCE: 7
215 gtgagtctaa cgatatctca tctaaa                                  26
218 <210> SEQ ID NO: 8
219 <211> LENGTH: 14
220 <212> TYPE: PRT
221 <213> ORGANISM: Staphylococcus aureus
223 <220> FEATURE:
224 <221> NAME/KEY: MISC_FEATURE
225 <222> LOCATION: (1)..(1)
226 <223> OTHER INFORMATION: "X" is defined as any amino acid residue.
229 <220> FEATURE:
```

```
230 <221> NAME/KEY: MISC_FEATURE
231 <222> LOCATION: (13)..(13)
232 <223> OTHER INFORMATION: "X" is defined as being either S or T.
235 <400> SEQUENCE: 8
237 Xaa Lys Ile Asn Asp Ile Asn Asp Leu Val Asn Ala Xaa Phe
238 1               5                   10
241 <210> SEQ ID NO: 9
242 <211> LENGTH: 8
243 <212> TYPE: DNA
244 <213> ORGANISM: Staphylococcus aureus
246 <400> SEQUENCE: 9
247 aggagtgg                                                    8
250 <210> SEQ ID NO: 10
251 <211> LENGTH: 6
252 <212> TYPE: DNA
253 <213> ORGANISM: Staphylococcus aureus
255 <400> SEQUENCE: 10
256 tagaat                                                      6
259 <210> SEQ ID NO: 11
260 <211> LENGTH: 6
261 <212> TYPE: DNA
262 <213> ORGANISM: Staphylococcus aureus
264 <400> SEQUENCE: 11
265 ttaccg                                                      6
268 <210> SEQ ID NO: 12
269 <211> LENGTH: 20
270 <212> TYPE: DNA
271 <213> ORGANISM: Staphylococcus aureus
273 <400> SEQUENCE: 12
274 ttactaaatt aaaaaaatta                                       20
277 <210> SEQ ID NO: 13
278 <211> LENGTH: 28
279 <212> TYPE: DNA
280 <213> ORGANISM: Staphylococcus aureus
282 <400> SEQUENCE: 13
283 taaattaatg ttatttttta ataattta                              28
286 <210> SEQ ID NO: 14
287 <211> LENGTH: 8
288 <212> TYPE: DNA
289 <213> ORGANISM: Staphylococcus aureus
291 <400> SEQUENCE: 14
292 taaattaa                                                    8
295 <210> SEQ ID NO: 15
296 <211> LENGTH: 8
297 <212> TYPE: DNA
298 <213> ORGANISM: Staphylococcus aureus
300 <400> SEQUENCE: 15
301 ataattta                                                    8
304 <210> SEQ ID NO: 16
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RAW SEQUENCE LISTING          DATE: 09/23/2002
PATENT APPLICATION:   US/10/043,539A     TIME: 10:23:43

Input Set : A:\EP.txt
Output Set: N:\CRF3\09232002\J043539A.raw

```
305 <211> LENGTH: 8
306 <212> TYPE: DNA
307 <213> ORGANISM: Staphylococcus aureus
309 <400> SEQUENCE: 16
310 taaattat                                                      8
313 <210> SEQ ID NO: 17
314 <211> LENGTH: 20
315 <212> TYPE: DNA
316 <213> ORGANISM: Staphylococcus aureus
318 <400> SEQUENCE: 17
319 ttactaaatt aaaaaaatta                                         20
322 <210> SEQ ID NO: 18
323 <211> LENGTH: 49
324 <212> TYPE: DNA
325 <213> ORGANISM: Staphylococcus aureus
327 <400> SEQUENCE: 18
328 tcttaagacc taaattaatg ttattttta ataatttaca ccaaattaa          49
331 <210> SEQ ID NO: 19
332 <211> LENGTH: 210
333 <212> TYPE: DNA
334 <213> ORGANISM: Staphylococcus aureus
336 <400> SEQUENCE: 19
337 gttttcaaaa tcggtggagg tgcatgaaaa agttattggg cattttttga aaataaaaaa   60
339 atatcaataa gttggagtca ttaccgaatt tttatactta tttgtttaga atgaacttta  120
341 taacatagtt ggatagagtt ttcgatttaa tacattaaat gtgaaccttg ctacaacaag  180
343 atgtgcatca gaaggagtgg tttaataatg                                   210
346 <210> SEQ ID NO: 20
347 <211> LENGTH: 29
348 <212> TYPE: DNA
349 <213> ORGANISM: Staphylococcus aureus
351 <400> SEQUENCE: 20
352 ctaaattaat gttattttt aataattta                                29
355 <210> SEQ ID NO: 21
356 <211> LENGTH: 3
357 <212> TYPE: DNA
358 <213> ORGANISM: Staphylococcus aureus
360 <400> SEQUENCE: 21
361 aaa                                                           3
364 <210> SEQ ID NO: 22
365 <211> LENGTH: 20
366 <212> TYPE: DNA
367 <213> ORGANISM: Staphylococcus aureus
369 <400> SEQUENCE: 22
370 aattaccttg tattgtcgat                                         20
373 <210> SEQ ID NO: 23
374 <211> LENGTH: 22
375 <212> TYPE: DNA
376 <213> ORGANISM: Staphylococcus aureus
378 <400> SEQUENCE: 23
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RAW SEQUENCE LISTING ERROR SUMMARY        DATE: 09/23/2002
PATENT APPLICATION:   US/10/043,539A       TIME: 10:23:44

Input Set : A:\EP.txt
Output Set: N:\CRF3\09232002\J043539A.raw

<u>Please Note:</u>
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.**

Seq#:8; Xaa Pos. 1,13
Seq#:26; Xaa Pos. 2,4,10,15,16,17,19,20,24,25,31,38,44,45,47,51,52,58,59,61
Seq#:26; Xaa Pos. 73,77,78,86,87,95,97,99,102,106,110,114,117,118,120

<u>Invalid Line Length:</u>
**The rules require that a line not exceed 72 characters in length. This includes spaces.**

Seq#:1; Line(s) 7